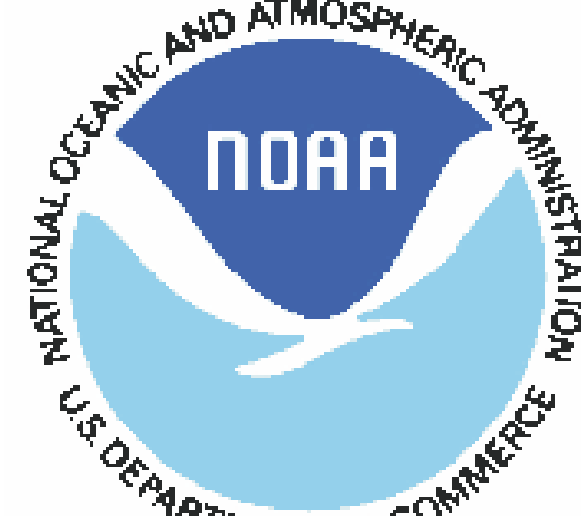


Right Whales and Ships: Trying to Prevent Close Encounters



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Figure 1. Container ship transiting the Great South Channel. Photo by NMFS SAS Program



Abstract

The western north Atlantic right whale, *Eubalaena glacialis*, remains critically endangered with the total population estimated at approximately 300 individuals. Although right whale hunting ended in the 1930's humans inadvertently have continued to cause serious injuries and mortalities that are affecting the species' recovery prospects. Of the 29 known right whale deaths between 1970 and 1993, eight (27%) are attributed to ship strikes and two (7%) to entanglement in fishing gear. The National Marine Fisheries Service and other agencies have instituted programs to address both ship strikes and entanglements. This poster focuses on the ship strike education and outreach efforts. A collaborative Right Whale Sighting Advisory System (SAS) began in 1997 with 12 participating agencies and organizations in the northeast US. Aerial Surveys conducted from January through June provide right whale sighting reports to mariners through several media. An educational video on the whale's susceptibility to ship collisions and a laminated brochure detailing right whale identification characteristics were produced to increase mariners' awareness of the problem. In July 1999, a Mandatory Ship Reporting (MSR) system went into place, requiring vessels (>300 gross tons) to report into an automatic system prior to entering designated areas (three east coast right whale critical habitat areas and additional essential port entry approach areas). The reporting system provides these mariners with general guidelines for prudent passage through these areas and any current known locations of whales from aerial surveys and other opportunistic reports. Acknowledging that aerial surveys and videos are not long term solutions to the problem, NMFS is supporting research into sonar detection of whales and development of predictive models that can indicate whales' probable locations based on various environmental parameters. Until technology or models can reliably detect or predict right whale locations, NMFS intends to continue sighting surveys and to increase educational programs with mariners.



Figure 2. Tanker sailing south out of the Bay of Fundy. NMFS SAS Program



Figure 3. Tug and tow departing port of Boston. NMFS SAS

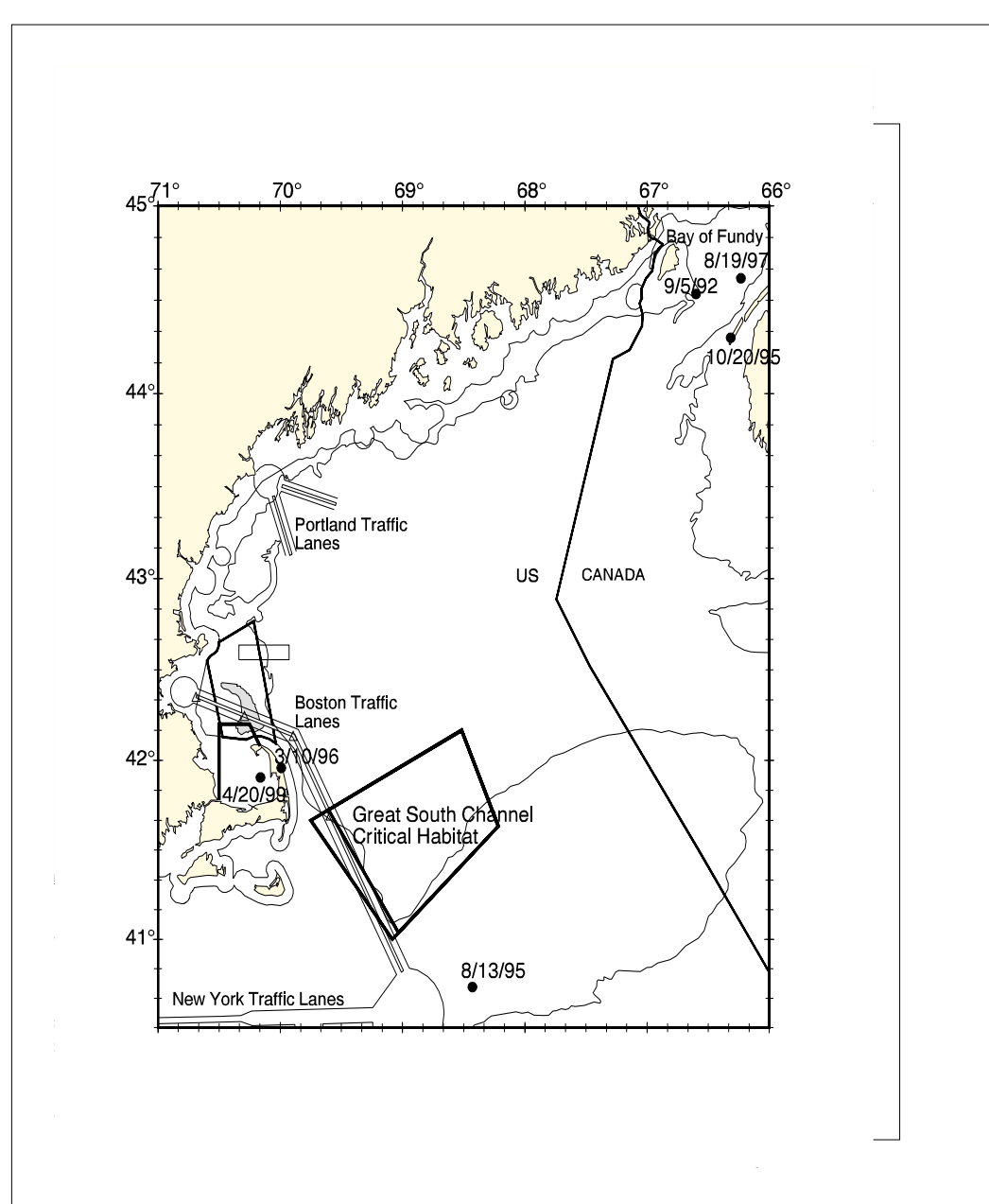


Figure 4. Right whale ship strikes off the northeast U.S. and in the Bay of Fundy since 1991.

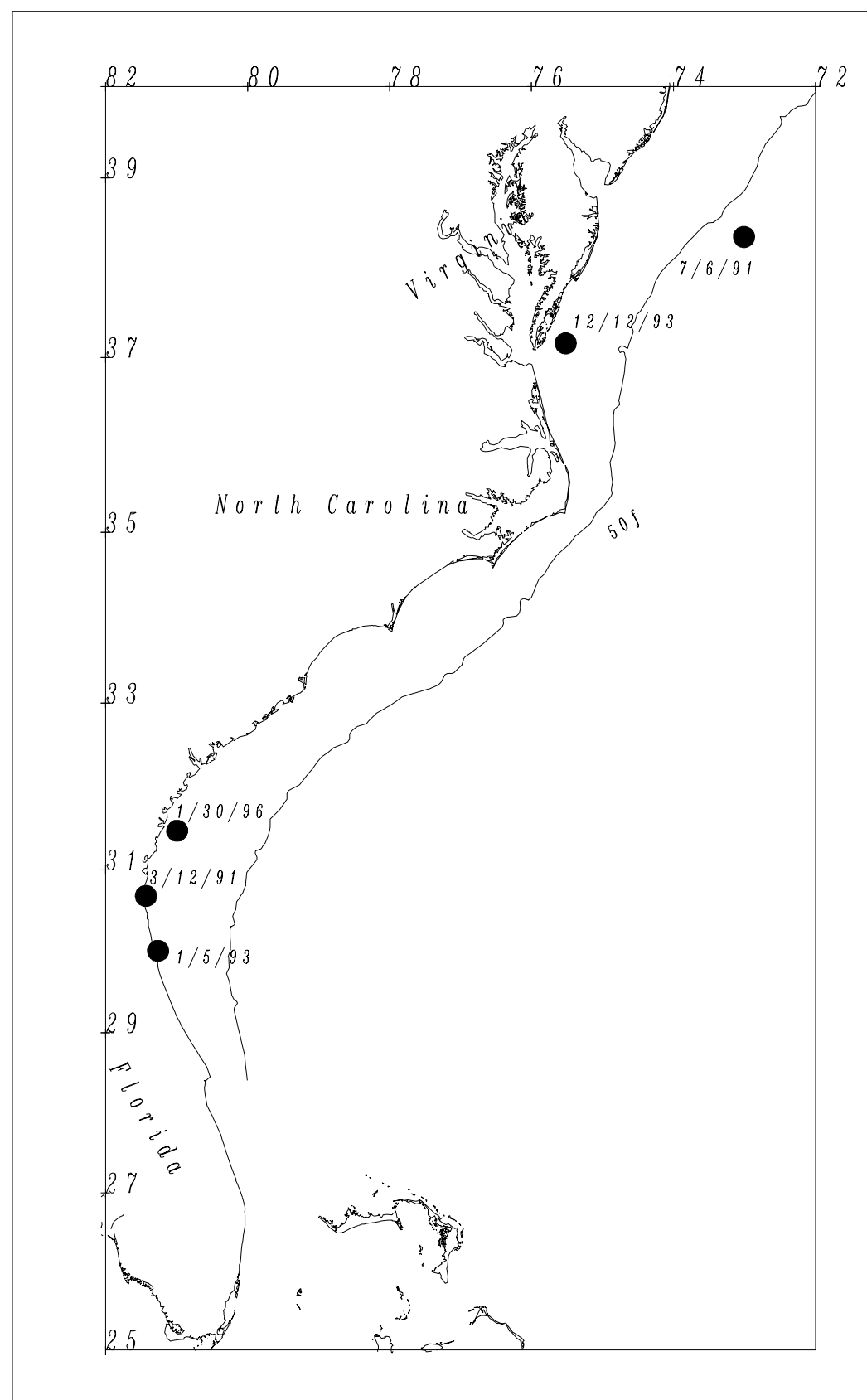


Figure 5. Right whale ship strikes off the southeast U.S. since 1991.

Alerts to Mariners

- right whale aerial surveys in Cape Bod Bay (late Dec-early Apr) & in Great South Channel (Mar-June)
- right whale sighting locations faxed real time to many sources
- Coast Guard-Broadcast Notice to Mariners & NAVTEX; NOAA Weather Radio, Traffic Controllers, agents & pilots
- right whale locations & maps updated & maintained on linked web sites. Primary site is <http://www.whalenet.net/rightwhale/>

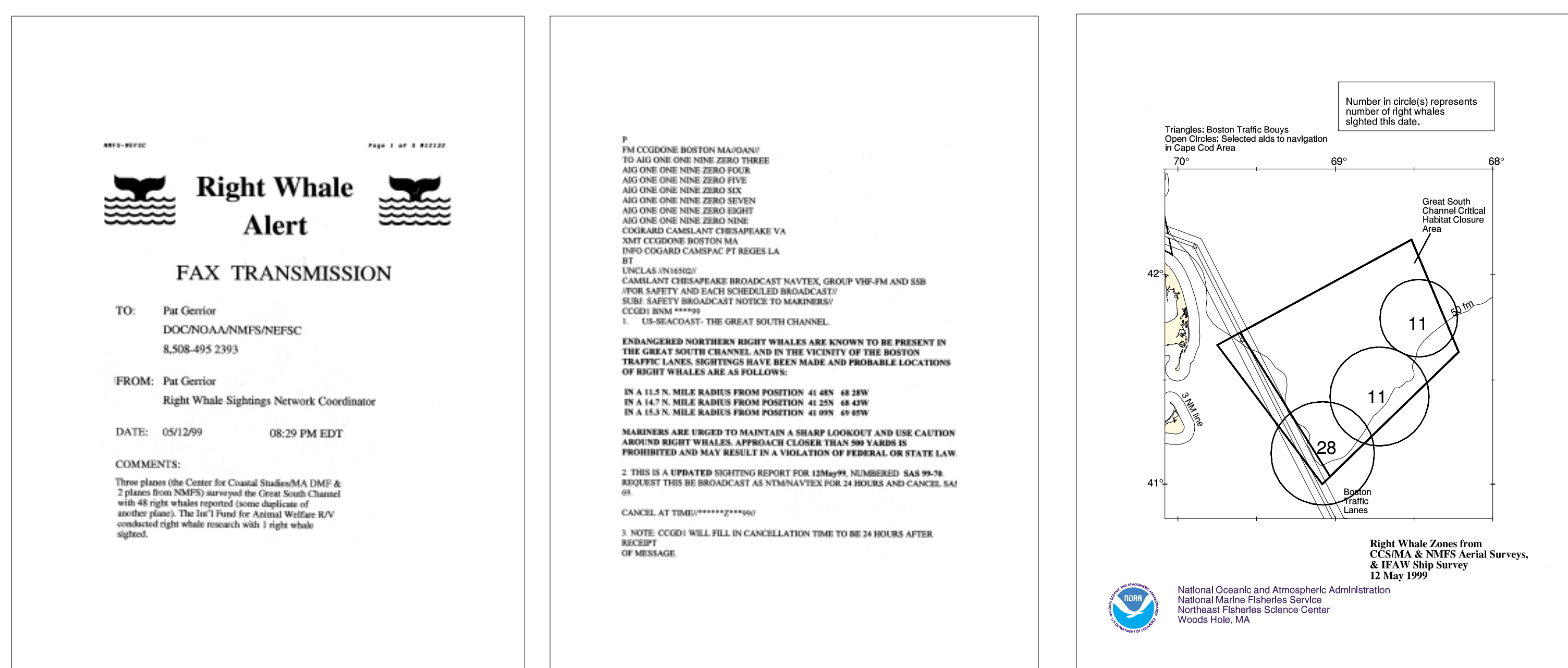


Figure 7. Right whale alert from 3 plane comprehensive aerial survey of the Great South Channel on 12 May 1999.

Mariner Education & Outreach

- Right Whale Brochure and Placard (Guidelines for Mariners)
- video (Right Whales and the Prudent Mariner)
- MSR return message with right whale avoidance guidance & most recent right whale locations
- Ports of Boston/Quincy Master/Pilot exchange card with right whale precautionary guidance
- SAS coordinator attendance at Port Operator's & Port Safety Committee meetings to update shipping community about right whale sightings and status

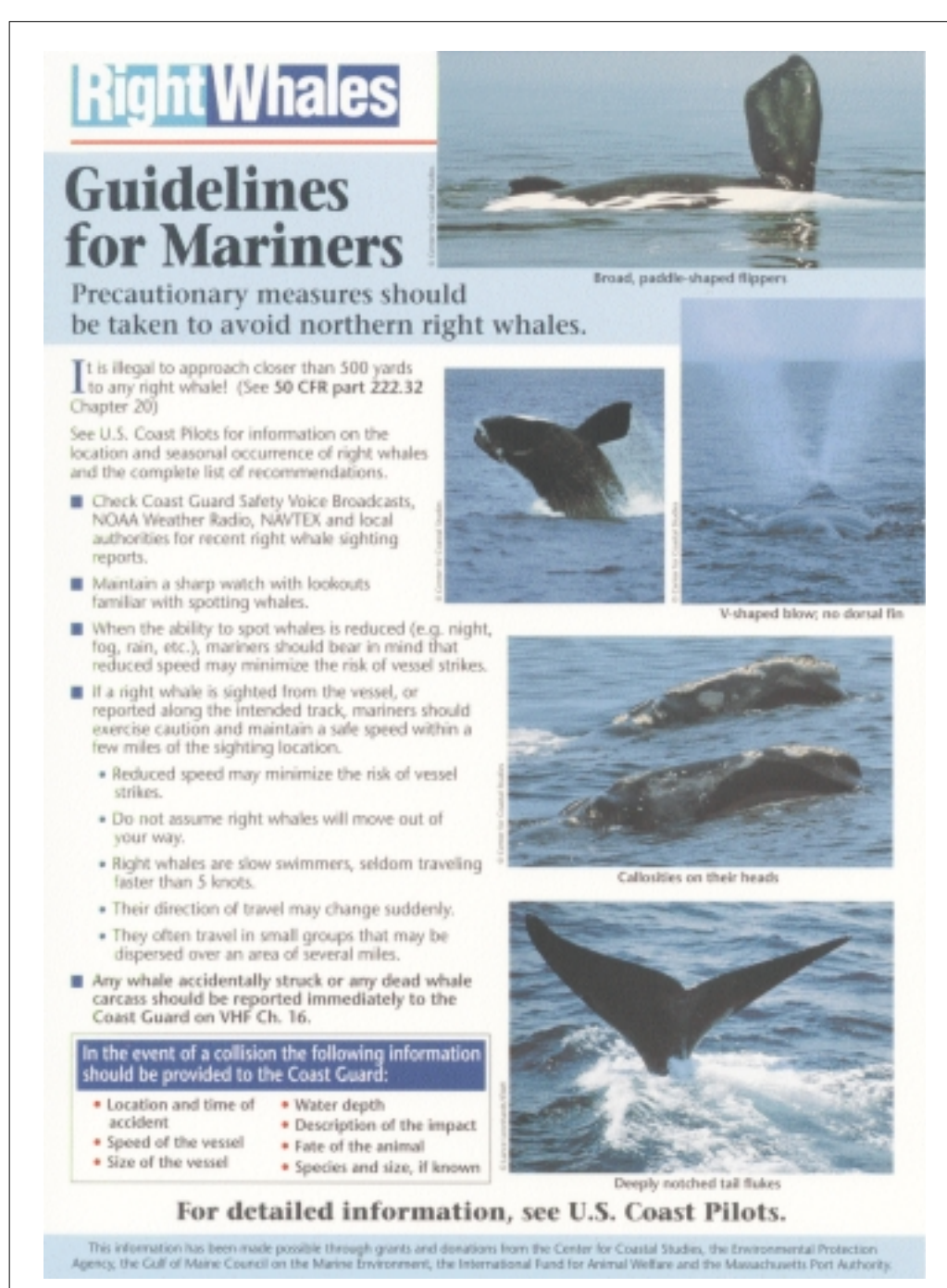


Figure 8. Right whale placard Guidelines for Mariners designed for posting in the pilothouse on vessels.



Figure 9. Video for mariners "Right Whales & the Prudent Mariner" distributed in English & French with an U.S. Navy version.

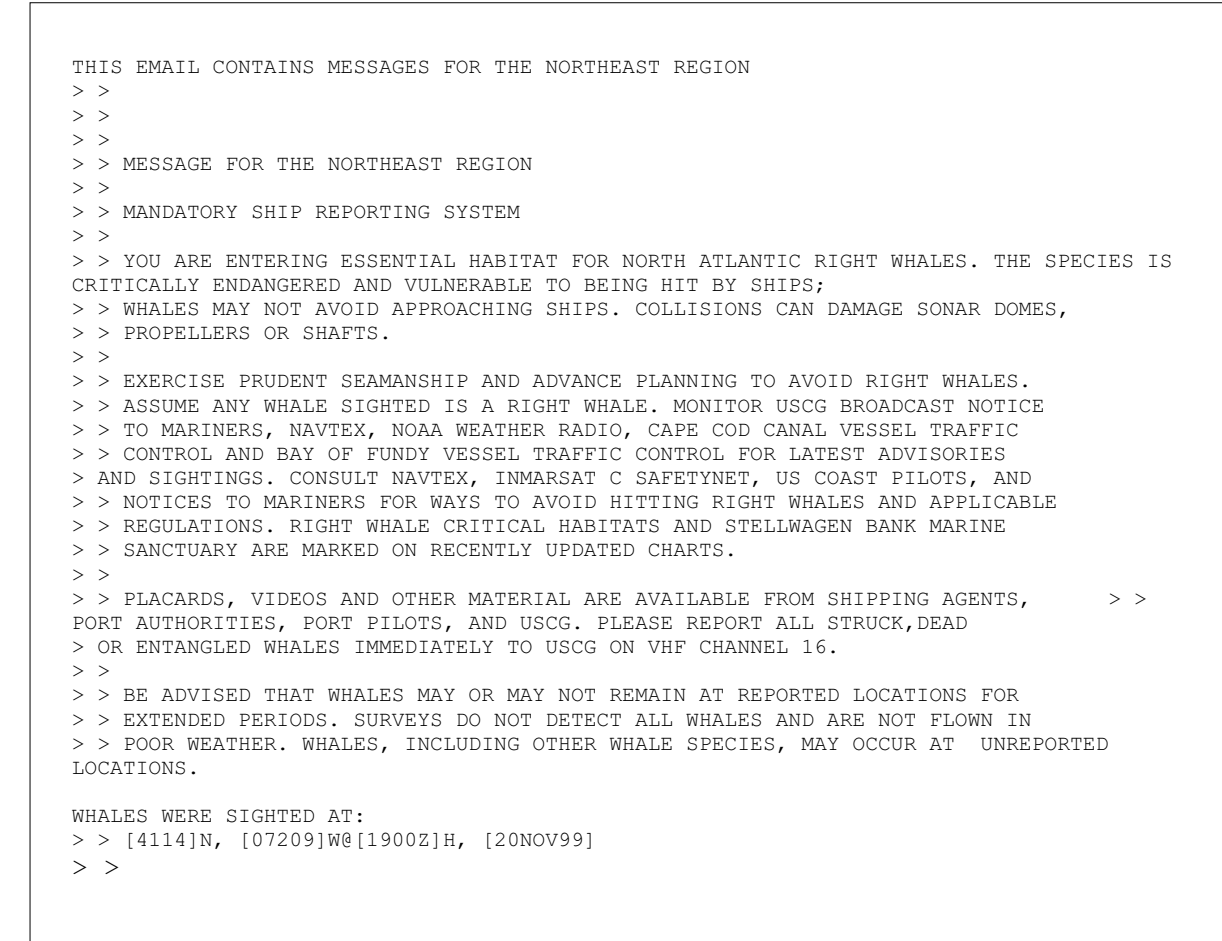


Figure 10. Return message sent to captains reporting in to the Mandatory Ship Reporting system.

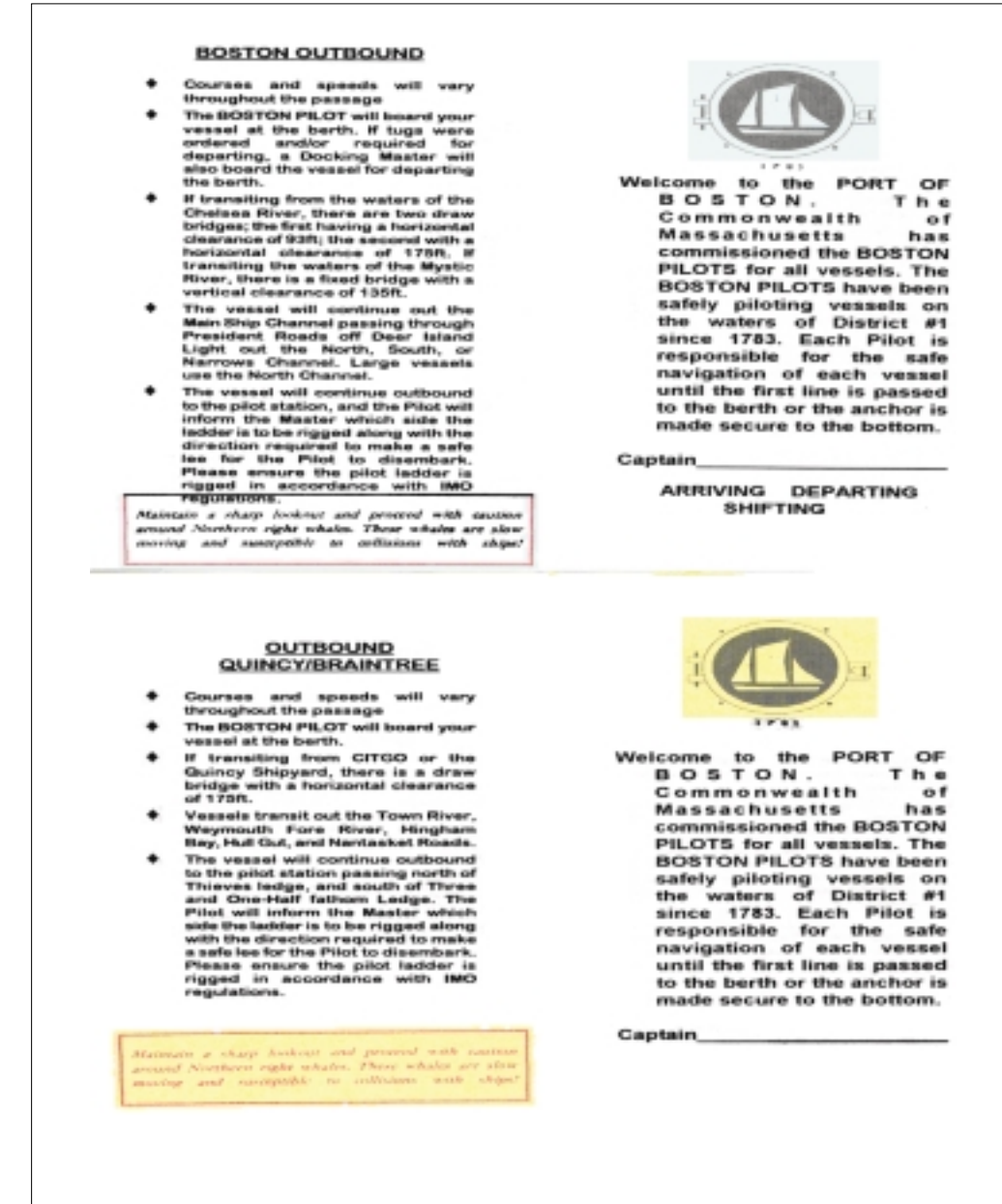


Figure 11. Right whale precautionary guidance on Ports of Boston & Quincy Master/Pilot Exchange cards.

Partnership

Sighting surveys, timely dissemination of right whale locations to mariners, and solutions to the ship strike problem can only result with communications and input from the many parties involved. On this principal, the SAS and other efforts have developed as partnerships involving many agencies, organizations and groups. In the Northeast, the SAS partnership has expanded each year and presently, includes:

NOAA National Marine Fisheries
Moran Shipping Agencies
NOAA Weather Radio, National Weather Service
Boston Harbor Pilots
Wheelock College
Bay Ferries, Ltd.
NOAA Stellwagen Bank National Marine Sanctuary
Cetacean Research Unit
International Wildlife Coalition
Bar Harbor Whalewatch, Ltd.

Massachusetts Environmental Trust
Commonwealth of Massachusetts
Bill Black Agency
Center for Coastal Studies
Sandy Hook Pilots Association
International Fund for Animal Welfare
Boston Shipping Association
New England Aquarium
NH Seacoast Cruises

U. S. Coast Guard
Peabody & Lane
U.S. Army Corps of Engineers
Portland Harbor Pilots
Massachusetts Port Authority
Woods Hole Oceanographic Institution
U.S. Navy, Naval Undersea Warfare Center
Dolphin Fleet
Cape Arundel Cruises, Inc.

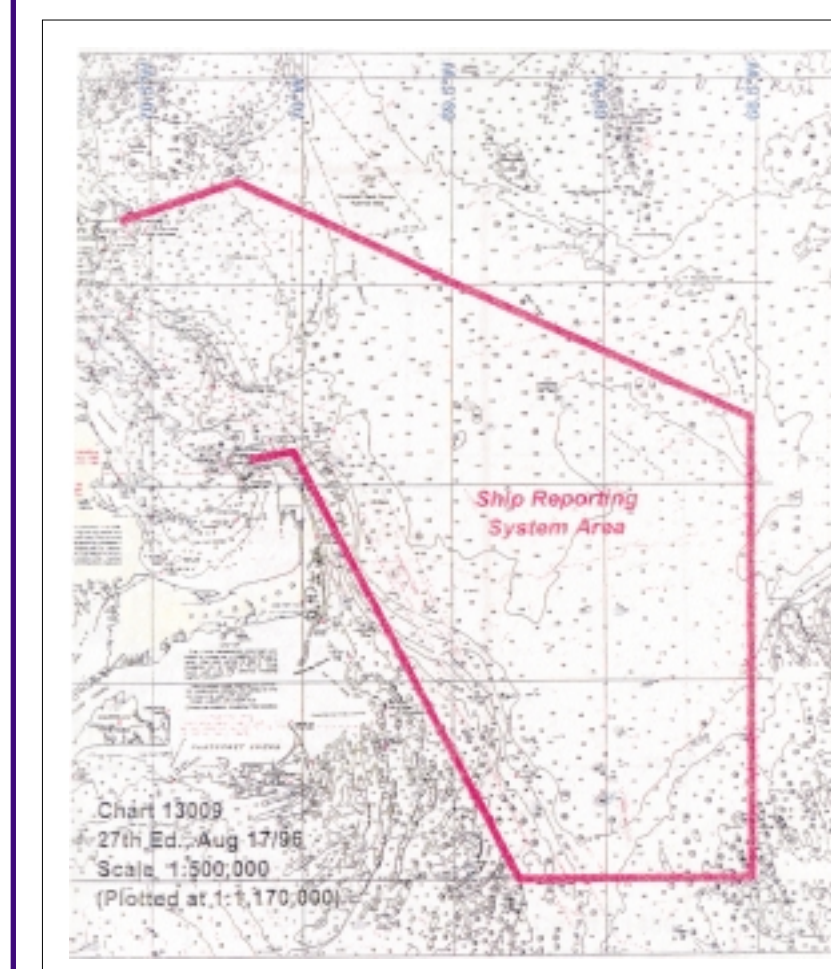


Figure 12. Mandatory Ship Reporting area North off the Massachusetts coast.

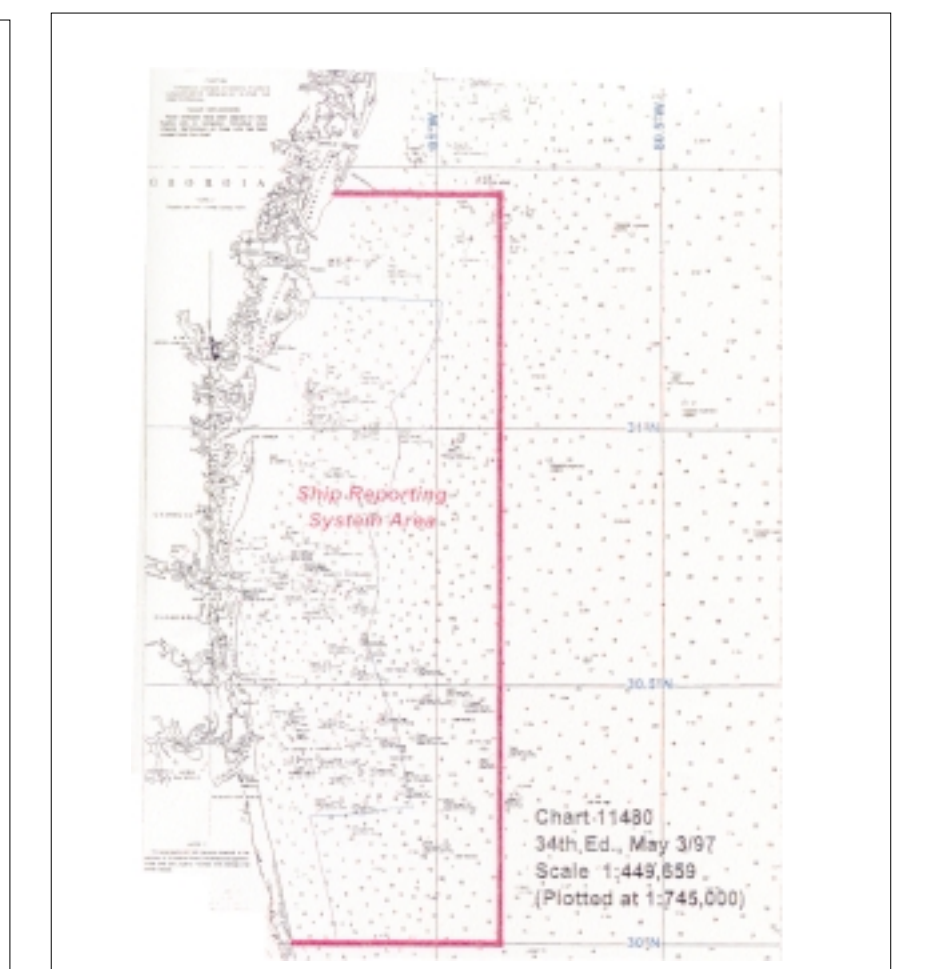


Figure 13. Mandatory Ship Reporting area South off the southeast U.S.

References

- Office Of Protected Species. 1999. Mandatory Ship Reporting System- A Guide for Mariners. NOAA, NMFS, 13pp.
- Waring, G.T., D.L. Palka, P.J. Clapham, S. Swartz, M.C. Rossman, T.V.N. Cole, K.D. Bisack, and L.D. Hansen. 1998. U.S. Atlantic Marine Mammal Stock Assessments. NOAA Tech. Memo. NMFS-NEC-116, 182pp.